REMARKS

Reconsideration and reexamination are requested in the above application.

On August 26, 2003, the examiner, representatives of the assignee, Mr. David Baggett, Mr. Gregory Galperin and Mr. Craig Stelmach and the undersigned conducted a telephonic interview. Discussed were claim 1 and how claim 1 distinguished over Walker et al., U.S. Patent 5,897,620 and Bierma et al., U.S. Patent 5,758,149. Agreement was reached that if Applicant positively recited in claim 1 that determining was done "proactively" that favorable consideration would be given to claim 1 and its dependent claims in view of rejections involving Walker et al., and Bierma et al. Applicant also pointed out to the examiner differences between claim 1 and the cited references pertaining to the criterion used for managing the cache. Applicant also agreed to review the remaining claims to amend them as appropriate to distinguish over the references.

The Examiner rejected claims 1-32 under 35 U.S.C. 103(a) as being unpatentable over Walker et al., U.S. Patent 5,897,620 in view of Bierma et al., U.S. Patent 5,758,149.

Applicant has amended claim 1 to more particularly point out Applicant's invention. Applicant's claim 1 as now amended recites proactively determining if a stored answer in the cache is stale, the stored answer corresponding to seat availability information for a seat on a mode of transportation. Claim 1 also recites that determining is based on a criterion for seat availability information, which criterion is determined based on needs of a travel planning system that makes queries to the cache for obtaining the seat availability information.

At least these features are neither described nor suggested by Walker, taken separately or in combination with Bierma. Claim 1 further recites if the stored answer pertaining to seat availability information is stale, sending an availability query to a source of seat availability information for the mode of transportation based on determining that the answer was stale.

This feature is also not suggested by the references.

Walker teaches to access a conventional yield management system used by airlines to allocate seats amongst fare classes. This teaching corresponds to the the source of seat

availability information referred to in applicant's claim, however Walker does not suggest sending an availability query to the source of seat availability information based on determining that the answer was stale.

The availability technique that Walker discloses is the actual querying of a source of availability information for availability data in order to satisfy a request to see if a travel option is available.

Thus, while Walker describes sending an actual availability query to a source of availability information, Walker does not describe sending an availability query to the source of seat availability information based on determining that an answer in a cache of availability data was stale. Walker does not suggest a cache and a technique to manage the cache. The Examiner notes that Walker does not disclose a cache for maintaining entries for seat availability and uses Bierma for disclosing 'an analogous system for suggesting that caches are well-known repositories for storing or maintaining data concerning airline seat availability, referencing column 1, lines 41-46, column 3, lines 27-32 et seq.'

Applicant disagrees that Bierma discloses any analogous system to that recited in Applicant's claim 1.

Claim 1 as amended now clearly recites proactively determining if a stored answer in the cache is stale ... based on a criterion for seat availability information, which criterion is determined based on needs of a travel planning system that makes queries to the cache for obtaining the seat availability information ... .

Bierma does not suggest a technique to populate a cache based on proactively determining staleness of data using a criterion determined based on needs of another system that makes the queries to the cache (i.e., the recited travel planning system). In Bierma, the only way entries are inserted or refreshed in the cache is as a result of a query being made to the cache by the data consumer. However, this approach does not suggest proactively determining if a stored answer in the cache is stale... based on a criterion for seat availability information, which criterion determined based on needs of a travel planning system, as recited in Claim 1.

Bierma is directed to a problem of how to allow both query and transaction processing against the same copy of a database. Bierma accomplishes this by using a buffer scheme to temporarily store a portion of a database that is being accessed by a query so that transaction processing is not affected. These teachings do not suggest to one of skill in the art a technique to populate a cache by proactively determining staleness based on a criterion for availability information with the criterion determined based on needs of a travel planning system that makes queries to the cache seat availability information. Rather, all that Bierma teaches is to keep the buffer ready based on the query currently being processed.

Moreover, Applicant maintains there is no suggestion to combine the teachings of Walker with Bierma to render obvious Applicant's claimed invention since neither Walker nor Bierma relate to the problem being solved by Applicant's invention, namely, managing a cache to avoid the unnecessary querying of a mode of transportation for availability information, e.g., an airline's availability system for airline availability information.

Applicant's claim 1 recites a technique to manage entries in the cache and to determine when the entries in the cache need to be updated by an actual availability query because the claimed management scheme determined that the answer was stale. However, this teaching is totally lacking in Bierma. Walker clearly does not provide the missing teaching either, as was acknowledeged by the examiner. Applicant's claim 1 thus distinguishes over Walker and Bierma.

Claim 5 was amended to call for a cache manager that manages a quality level of entry information in the cache by proactively populating the cache to maintain a high quality level of entries of seat availability information ..., with the quality level ... determined by evaluating entries in the cache according to a criterion related to needs of a travel planning system ... and that sends an availability query to a source of seat availability information for the mode of transportation based on determining that the seat availability information in the cache was stale. For similar reasons as discussed above, this claim distinguishes over Walker and Bierma.

Claim 19 was amended to call for ... instructions to cause a computer to proactively determine whether a stored answer in the cache is stale, the stored answer corresponding to seat

availability information ..., with instructions to determine being based on a ... criterion ... determined based on needs of a travel planning system .... The claim also recites instructions to update the stored answer in the cache when the stored answer is stale by sending an availability query to a source of availability information for the mode of transportation. For similar reasons as discussed above this claim is also allowable.

Claim 23 was amended to call for instructions to ... manage a quality level of entry information in the cache with the quality level of the seat availability information in the cache determined by comparing a criterion of the entries in the cache to criterion determined based on needs of a travel planning system that makes queries to the cache .... Claim 23 also recites deleting or modifying the entry based on determining that the entry should be deleted or modified and proactively populating the cache by sending an availability query to a source of seat availability information for the mode of transportation based on determining that the entry for the seat availability information in the cache should be added. For similar reasons as discussed above this claim is also allowable.

Claim 30 recites ... determining, which entries to add, delete, or update in the cache by monitoring and examining availability queries made to the cache by a travel planning system to determine which instances of transportation have a high demand for availability information, and proactively updating entries in the cache if an instance is determined to have a higher than average or higher than expected demand.

These features are not suggested by Walker or Bierma. While Walker describes sending an actual availability query to a source of availability information, Walker does not describe a cache and managing the cache. Bierma while disclosing a cache and a database, does not suggest populating a cache based monitoring and examining availability queries made to the cache by a travel planning system to determine which instances have a high demand for availability information and updating entries in the cache based on if an instance is determined to have a higher than average or higher than expected demand. This element is not suggested by Bierma.

Applicant's dependent claims add further distinct features to the invention as generally argued of record and are at least allowable due to their dependency on allowable base claims.

The art cited but not applied is seen as neither describing nor suggesting applicant's invention whether taken separately or in combination with the art of record.

Accordingly, in view of the above amendments and remarks, it is submitted that the case is now in condition for allowance and such action is respectfully requested.

Enclosed is a **$410** check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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